

NOTIFICATION APPLIANCE CIRCUIT
VOLTAGE DROP & POWER REQUIREMENTS

CKT AV3: 50B 3RD-7TH FLRS [FAP-01-50B]	QTY	CURRENT PER ITEM (AMPS)	TOTAL CURRENT PER ITEM
DESCRIPTION			
WHEELLOCK STROBE 15 cd	—	0.5010	0.0000
WHEELLOCK HORN/STROBE 15cd	—	0.0000	0.0000
WHEELLOCK STROBE 30 cd	—	0.0300	0.0000
WHEELLOCK HORN/STROBE 30 cd	—	0.0450	0.0000
WHEELLOCK STROBE 75 cd	—	0.0210	0.0000
WHEELLOCK HORN/STROBE 75 cd	—	0.1100	0.0000
WHEELLOCK STROBE 110 cd	—	0.2200	1.1000
WHEELLOCK HORN/STROBE 110 cd	—	0.1750	0.0000
WHEELLOCK HORN	—	0.0000	0.0000
AUTOCALL BELL	11	0.0500	0.5500
TOTAL NOTIFICATION APPLIANCES CURRENT			0.5500

VOLTAGE DROP (VD) CALCULATIONS

VD = {(I) (D) (21.6)}}/CM

WHERE: I = CIRCUIT CURRENT

D = CONDUCTOR LENGTH (FT) ONE WAY

21.6 = A CONSTANT

CM = CIRCULAR MILS

VD = {(0.55A) (170FT) (21.64)}}/4110 = 0.491V

%VD = {0.491V / 24V} X 100 = 2.047%

REMAINING VOLTS = 23.509

WIRE SIZE	CIRCULAR MILS
12AWG	6530
14AWG	4110
16AWG	2580
18AWG	1620
20AWG	1020

NOTIFICATION APPLIANCE CIRCUIT
VOLTAGE DROP & POWER REQUIREMENTS

CKT AV4: BANK 480 SUBSTATION [FAP-01B-50B]	QTY	CURRENT PER ITEM (AMPS)	TOTAL CURRENT PER ITEM
DESCRIPTION			
WHEELLOCK STROBE 15 cd	—	0.5010	0.0000
WHEELLOCK HORN/STROBE 15cd	—	0.0000	0.0000
WHEELLOCK STROBE 30 cd	—	0.0300	0.0000
WHEELLOCK HORN/STROBE 30 cd	—	0.0450	0.0000
WHEELLOCK STROBE 75 cd	—	0.0210	0.0000
WHEELLOCK HORN/STROBE 75 cd	—	0.1100	0.0000
WHEELLOCK STROBE 110 cd	—	0.2200	0.0000
WHEELLOCK HORN/STROBE 110 cd	—	0.1750	0.0000
WHEELLOCK HORN	—	0.0000	0.0000
AUTOCALL BELL	1	0.0500	0.0500
TOTAL NOTIFICATION APPLIANCES CURRENT			0.0500

VOLTAGE DROP (VD) CALCULATIONS

VD = {(I) (D) (21.6)}}/CM

WHERE: I = CIRCUIT CURRENT

D = CONDUCTOR LENGTH (FT) ONE WAY

21.6 = A CONSTANT

CM = CIRCULAR MILS

VD = {(0.05A) (250FT) (21.64)}}/4110 = 0.066

%VD = {0.066V / 24V} X 100 = 0.274%

REMAINING VOLTS = 23.934

WIRE SIZE	CIRCULAR MILS
12AWG	6530
14AWG	4110
16AWG	2580
18AWG	1620
20AWG	1020

	AS BUILT — — 09/23/13									BLDG 50B, 50F FIRE ALARM CALCULATIONS —	DRAWN BY LDD	DATE 9/23/2013	
											CHECKED BY LDD	9/23/2013	
											APPROVED BY MCD	9/23/2013	
											SCALE AS NOTED		
											DRAWING NO. 4B50BE354	SHEET	
PROFESSIONAL SEAL (IF REVISION, APPLIES ONLY TO REVISED WORK)	ISSUE (PROGRESS, ESTIMATE, BID, CONSTRUCTION, CONFORMED, REVISION, RECORD)	REVISION NUMBER	DRAWN BY	CHECKED BY	APPR'D BY	DATE	REMARKS	UNIVERSITY OF CALIFORNIA LAWRENCE BERKELEY NATIONAL LABORATORY FACILITIES DIVISION				PROJECT NO. 000000	2 OF 2